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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/922,045 | 08/03/2001 | Jeff Lin | JCLA6649 | 7556 |

7590

01/21/2004

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| EXAMINER |
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KNOLL, CLIFFORD H

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| ART UNIT | PAPER NUMBER |
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2112

DATE MAILED: 01/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,045

Applicant(s)

LIN, JEFF

Examiner

Clifford H Knoll

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, "the previous transaction of the read transaction is the read transaction" is unclear because the antecedent basis for the claimed transactions cannot be clearly established. Likewise "the previous transaction of the read transaction is the write transaction", "the previous transaction of the write transaction is the read transaction", and "the previous transaction of the write transaction is the write transaction" lack clear antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 5-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Gulick (US 6499079).

Regarding claim 1, Gulick discloses the method of providing each transaction with a value to determine an order of execution (e.g., col. 10, lines 6-8), providing each transaction with a master identification value and gathering transaction having an identical master identification value and accessing the shared system resource in sequence according to the value (e.g., col. 9, lines 16-20).

Regarding claim 2, Gulick also discloses write and read transactions (e.g., col. 9, line 36).

Regarding claim 5, Gulick also discloses incorporating a flush and fence signal provided by an AGP bus to ensure proper transaction execution sequence (e.g., col. 12, lines 47-61).

Regarding claim 6, Gulick discloses at least one master controller capable of submitting read and write transactions, first bus, bridging device, and second bus (e.g., col. 4, lines 45-53), a chipset coupled to the second bus and the shared system resource for selecting one of the transactions (e.g., col. 5, lines 19-21).

Regarding claim 7, Gulick also discloses the PCI bus (e.g., col. 4, line 47).

Regarding claim 8, Gulick also discloses the AGP bus (e.g., col. 18, lines 12-14).

Regarding claim 9, Gulick also discloses the transaction identification value for determining execution sequence (e.g., col. 10, lines 6-8).

Regarding claim 10, Gulick also discloses the master identification value (e.g., col. 9, lines 16-20).

Regarding claim 11, Gulick also discloses the plurality of read and write queues for holding the master and transaction identification values (e.g., col. 13, lines 25-28).

Thus are claims 1-2, 5-11 rejected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulick in view of standard ordering practice, as further evidenced by Nishtala (US 2002/0138790).

Regarding claim 3, Gulick also discloses providing the first transaction with a transaction identification value of 0 (e.g., col. 15, lines 21-23, Figure 9), adding 0 when the previous transaction of the write transaction is the write transaction or the read transaction is the read transaction (e.g., col. 13, lines 21-25), and adding a nonzero

number when the previous transaction of the write transaction is the read transaction or the read transaction is the write transaction (e.g., col. 15, lines 9-12).

Regarding claim 4, Gulick discloses executing transaction as ordered by the transaction identification value (e.g., col. 15, lines 11-12), executing the write transactions to access the shared system resource before the read transactions if two or more transactions have the same smallest transaction identification value (e.g., col. 12, lines 21-25).

Gulick neglects to mention the particular ordering of the transaction identification value as being a numerical order; however the Examiner takes Official Notice that it is widely known to use numerical order when ordering transactions as further evidenced by Nishtala. Nishtala discloses a numerical ordering of the transaction value (e.g., paragraph [0040]). It would be obvious to combine a numerical ordering with transaction identification value because numerical ordering is a standard means to establish ordering on numbers.

Thus are claims 3 and 4 rejected.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sartori (Hypertransport technology: A high bandwidth, low complexity bus architecture) discloses advanced transaction techniques.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2100.

chk


XUAN M. THAI
PRIMARY EXAMINER
TC2100